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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/659,693
Filing Date: September 11, 2000
Appellant(s): SUTARDJA, SEHAT

Michael D. Wiggins
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 18 August 2006 appealing from the Office action mailed 23 February 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Applications 10/184,505, 10/184,302 and 10/184,299

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

A substantially correct copy of the appealed claims appears on page 31 of the Appendix to the appellant's brief. The minor errors are as follows: Applicant correctly acknowledges which claims are pending in section (3) Status of Claims, however, in

Appendix A, claims 24 and 27 appeal in the listing of claims which were previously canceled.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Related Proceedings Appendix

The Related Proceedings Appendix does not refer to the related proceedings in 10/184,299.

(10) References of Record

Birrell (U.S. Patent 6,332,175), Gadre (U.S. Patent 6,308,253), Yanagihara (U.S. Patent 6,233,393) and Terui (U.S. Patent 5,903,871).

(11) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 172 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 172 claims a computer program with no practical application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 – 4, 6, 9, 11 – 13, 15, 18, 22, 23, 28 – 31, 33, 36, 38 – 40, 42, 45, 97, 98, 100, 101, 104 – 107, 109, 110 and 169 – 172 are rejected under 35 U.S.C. 102(e) as being anticipated by Birrell (U.S. Patent 6,332,175).

Regarding **Claims 1, 22 and 28**, Birrell discloses:

A media player/recorder (title) comprising:

a storage device to store compressed media data (i.e. a disk controller; Fig. 1 element 104);

a programmable processor which is programmed as a storage controller to retrieve the compressed media data stored in said storage device (i.e. the system contains multiple control programs executed by the data processor, on being a play procedure; Fig. 1 element 102 and col. 5 lines 5 – 33; the play control logic, which is

part of the play procedure as shown in Fig. 2, transfers data from the disk to RAM; col. 6 lines 14 – 16);

a memory to store the compressed media data retrieved by said programmable processor (i.e. a RAM; Fig. 1 element 108);

wherein said programmable processor is also programmed as a digital signal processor to decompress the compressed media data stored in said memory (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25); and

an output circuit to output the decompressed media data from said programmable processor (i.e. an audio output jack; Fig. 1 element 130).

Regarding **Claims 2, 12, 29 and 39**, in addition to the elements stated above regarding claims 1, 11, 28 and 38, Birrell further discloses:

wherein said memory comprises a dynamic access memory (i.e. a RAM; Fig. 1 element 108).

Regarding **Claims 3, 13, 23, 30 and 40**, in addition to the elements stated above regarding claims 1, 11, 22, 28 and 38, Birrell further discloses:

an interface responsive to said processor to communicate with an external device (i.e. a computer jack; Fig. 1 element 132).

Regarding **Claims 4 and 31**, in addition to the elements stated above regarding claims 1 and 28, Birrell further discloses:

wherein said digital signal processor is configured to control said storage device and to decompress the media data stored in said memory (i.e. the play control logic, which is part of the play procedure as shown in Fig. 2 and controlled by the processor, transfers data from the disk to RAM; col. 6 lines 14 – 16; and the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25).

Regarding **Claims 6, 15, 33 and 42**, in addition to the elements stated above regarding claims 4, 11, 31 and 38, Birrell further discloses:

wherein said digital signal processor comprises a decoder to decompress the media data stored in said memory (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25).

Regarding **Claims 9, 18, 36 and 45**, in addition to the elements stated above regarding claims 3, 13, 30 and 40, Birrell further discloses:

wherein the media data is transferred from the external device through said interface for storage on said device (i.e. a jack for downloading compressed audio data onto the hard disk; col. 4 lines 25 – 28).

Regarding **Claims 11 and 38**, Birrell discloses:

A media player/recorder (title) comprising:

a storage device to store compressed media data (i.e. a disk controller; Fig. 1 element 104);

a programmable processor which is programmed as a storage controller to retrieve the compressed media data stored in said storage device (i.e. the system contains multiple control programs executed by the data processor, on being a play procedure; Fig. 1 element 102 and col. 5 lines 5 – 33; the play control logic, which is part of the play procedure as shown in Fig. 2, transfers data from the disk to RAM; col. 6 lines 14 – 16);

wherein said programmable processor is also programmed to decompress the compressed media data stored in said storage device (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25); and

an output circuit to output the decompressed media data from said programmable processor (i.e. an audio output jack; Fig. 1 element 130),

wherein said programmable processor comprises a digital signal processor (i.e. the processor operates on digital audio and therefor processes a digital signal), and uses the same circuit to control said storage device and to decompress the compressed media data stored in memory (i.e. the play control logic, which is part of the play procedure as shown in Fig. 2 and controlled by the processor, transfers data from the disk to RAM; col. 6 lines 14 – 16; and the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25.

Regarding **Claims 97, 100, 104, 106 and 109**, in addition to the elements stated above regarding claims 1, 11, 22 and 28, Birrell further disclose:

wherein said storage device comprises a hard disk (Fig. 1 element 104).

Regarding **Claims 98, 101, 105, 107, 110**, in addition to the elements stated above regarding claims 1, 11, 22 and 28, Birrell further discloses:

wherein said storage device is selected from the group consisting of optical disk, magnetic disk, CD-ROM, CDR, and CDRW (i.e. a hard disk (*magnetic*); Fig. 1 element 104).

Regarding **Claims 169 – 172**, Birrell discloses:

A media player/recorder (title and abstract): comprising:

a storage device to store media data (disk 104; Fig. 1), the media data comprising a plurality of selections (i.e. multiple songs on the disk);

a memory (RAM 108; Fig. 1)

a processor to transfer first portions of at least one of the plurality of selections of the media data from said storage device to said memory (i.e. the system contains multiple control programs executed by the data processor, on being a play procedure; Fig. 1 element 102 and col. 5 lines 5 – 33; the play control logic, which is part of the play procedure as shown in Fig. 2, transfers data from the disk to RAM; col. 6 lines 14 – 16;

the play control logic maintains sufficient portions of data in the RAM to ensure that there is no break in the playback; col. 6 lines 5 – 28);

an output device (audio output jack 130; Fig. 1);

wherein said output device outputs the first portions of the at least one of the plurality of sections of media data form the memory (i.e. as the audio data is played back, the portions present in RAM are read out to the audio out jack; col. 6 lines 5 – 28);

wherein when a user selects a particular one of said plurality of selections, said processor retrieves a remaining portion of the particular one of said plurality of selections and said output device outputs the portion and remaining portion the particular one of said plurality of selections (i.e. user selections are added to a play list, which is a queue of tracks to be played by the system; col. 5 lines 1 – 3 and as the audio data is played back, the portions present in RAM are read out to the audio out jack; col. 6 lines 5 – 28).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7, 16, 34 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175).

Regarding **Claims 7, 16, 34 and 43**, in addition to the elements stated above regarding claims 6, 15, 33 and 42, Birrell further discloses:

storing a process for decompressing compressed data for a selected compression format (i.e. a ROM that stores a decompression procedure for decompressing compressed audio data; col. 5 lines 22 – 44).

Birrell does not explicitly discloses storing the process on the storage device as claimed in claim 1. However, Examiner takes official notice that it would have been obvious to one of ordinary skill in the art at the time of the invention to store the procedures in the ROM instead of in the storage device. Both the ROM and the disk are non-volatile memory devices and therefore are suitable to store system procedure programs. It would be an obvious variation to store the programs instead on the disk. One would have been motivated to do so in order to manufacture the Birrell player with less parts and thus making it less costly as the ROM would not be required if the programs were stored instead on the disk.

Claims 5, 14, 20, 32, 41, 47, 99, 102, 103, 108, 111 and 112 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253).

Regarding **Claims 5, 14, 32 and 41**, in addition to the elements stated above regarding claims 1, 11, 28 and 38, Birrell further discloses:

said digital signal processor to control said storage device and to decompress the media data stored in said memory (i.e. the play control logic, which is part of the play procedure as shown in Fig. 2 and controlled by the processor, transfers data from the disk to RAM; col. 6 lines 14 – 16; and the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25);

said storage controller responsive to said digital signal processor (i.e. a disk controller; Fig. 1 element 106); and

a read channel to read data from said storage device and response to said storage controller (i.e. the CPU and the disk controller are coupled to the same bus allowing the transfer of audio data; the bus coupling the elements together in Fig. 1).

Birrell does not disclose these elements within the programmable processor as a single integrated circuit.

Gadre discloses a significant need as developed for integrating the functionality of multiple DSP chips onto the same integrated circuit. Two primary integration approaches are often used to implement multiple DSP functions on a given integrated circuit device, a hardware and a software approach; col. 1 lines 53 – 67 and col. 2 lines 1 – 34.

Applying this teaching to the Birrell reference would create a processor comprising a single integrated circuit comprising the elements stated above.

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement these elements onto a single chip such as Birrell's processor in the manner as taught by Gadre. One would have been motivated to do so in order to achieve greater performance, lower design and manufacturing costs, reduced component size, and reduced power requirements; see Gadre, col. 1 lines 56 – 80.

Regarding **Claims 20 and 47**, Birrell discloses

An integrated circuit (CPU) to control a media player/recorder having a storage device having stored thereon compressed media data (Hard Disk), a memory (RAM) and an output circuit (Audio output jack), said integrated circuit comprising:

a programmable processor that is programmed as:

a digital signal processor to control the storage device (i.e. the play control logic, which is part of the play procedure as shown in Fig. 2 and controlled by the processor, transfers data from the disk to RAM; col. 6 lines 14 – 16)

a read channel responsive to said storage controller to read the compressed media data from the storage device (i.e. the CPU and the disk controller are coupled to the same bus allowing the transfer of audio data; the bus coupling the elements together in Fig. 1 and the CPU uses the play procedure to command the storage device to use the read channel to transfer the data),

wherein said digital signal processor transfers the compressed media data read by said read channel to the memory (i.e. the play control logic, which is part of the play procedure as shown in Fig. 2 and controlled by the processor, transfers data from the

disk to RAM; col. 6 lines 14 – 16 and the CPU and the disk controller are coupled to the same bus allowing the transfer of audio data; the bus coupling the elements together in Fig. 1),

wherein said digital signal processor comprises a decoder to decompress the compressed media data stored in said memory (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25); and

converts the media data decompressed by said decoder to an analog signal (i.e. a D/A converter; Fig. 1 element 126); and

a storage controller responsive to said digital signal processor (Fig. 1 element 106).

Birrell does not explicitly disclose that the digital signal processor converts the media data decompressed by said decoder to an analog signal or the storage controller (Fig. 1 element 106) is part of the programmable processor.

Gadre discloses a significant need as developed for integrating the functionality of multiple DSP chips onto the same integrated circuit. Two primary integration approaches are often used to implement multiple DSP functions on a given integrated circuit device, a hardware and a software approach; col. 1 lines 53 – 67 and col. 2 lines 1 – 34.

Applying this teaching to the D/A converter, storage controller and CPU of the Birrell reference would create digital signal processor that converts the media data

decompressed by said decoder to an analog signal and a digital signal processor contains a storage controller responsive to said digital signal processor.

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement these elements onto a single chip such as Birrell's processor in the manner as taught by Gadre. One would have been motivated to do so in order to achieve greater performance, lower design and manufacturing costs, reduced component size, and reduced power requirements; see Gadre, col. 1 lines 56 – 80.

Regarding **Claims 99, 102, 103, 108, 111 and 112**, in addition to the elements stated above regarding claims 5, 14, 20, 32, 41 and 47, Birrell further discloses:

wherein said storage device comprises a hard disk (i.e. a hard disk; element 104 Fig. 1), and

wherein said storage controller comprises a hard disk controller (i.e. disk controller 106 Fig. 1).

Claims 8, 17, 25, 35 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Yanagihara (U.S. Patent 6,233,393).

Regarding **Claims 8, 17, 35 and 44**, in addition to the elements stated above regarding claims 7, 16, 34 and 43, Birrell further discloses:

wherein the processor for decompressing compressed data is retrieved from said storage device (i.e. the CPU uses a stored decompression procedure to decompress; col. 5 lines 20 – 25); and

wherein said decoder decompresses the media data in accordance with the retrieved process (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25).

Birrell does not explicitly disclose wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format.

Yanagihara discloses:

wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format. (i.e. the general controller determines the compression such as one of MPEG audio, Dolby AC-3, and Linear PCM and sets a decoder in accordance with the data received).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement Yanagihara's general controller on the modified CPU of Birrell in order to determine a type of media compression. One would have been motivated to do so to enable the player to be able to play a number of various audio files in different compression formats. With the lack of a standard compression technique in digital audio encoding, multiple formats have been developed (i.e. mp3, AAC, ADPCM,

windows media audio, real audio, etc…) and it would have been desirable to have a player such as Birrell's to be enabled to play the different media.

Regarding **Claim 25**, in addition to the elements stated above regarding claim 22 Birrell further discloses:

storing a process for decompressing compressed data for a selected compression format (i.e. a ROM that stores a decompression procedure for decompressing compressed audio data; col. 5 lines 22 – 44).

Birrell does not explicitly discloses storing the process on the storage device as claimed in claim 21. However, Examiner takes official notice that it would have been obvious to one of ordinary skill in the art at the time of the invention to store the procedures in the ROM instead of in the storage device. Both the ROM and the disk are non-volatile memory devices and therefore are suitable to store system procedure programs. It would be an obvious variation to store the programs instead on the disk. One would have been motivated to do so in order to manufacture the Birrell player with less parts and thus making it less costly as the ROM would not be required if the programs were stored instead on the disk.

Furthermore Birrell discloses:

wherein the processor for decompressing compressed data is retrieved from said storage device (i.e. the CPU uses a stored decompression procedure to decompress; col. 5 lines 20 – 25); and

wherein said decoder decompresses the media data in accordance with the retrieved process (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25).

Birrell does not explicitly disclose wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format.

Yanagihara discloses:

wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format. (i.e. the general controller determines the compression such as one of MPEG audio, Dolby AC-3, and Linear PCM and sets a decoder in accordance with the data received).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement Yanagihara's general controller on the modified CPU of Birrell in order to determine a type of media compression. One would have been motivated to do so to enable the player to be able to play a number of various audio files in different compression formats. With the lack of a standard compression technique in digital audio encoding, multiple formats have been developed (i.e. mp3, AAC, ADPCM, windows media audio, real audio, etc…) and it would have been desirable to have a player such as Birrell's to be enabled to play the different media.

Claims 21 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253) in further view of Yanagihara (U.S. Patent 6,233,393).

Regarding **Claims 21 and 48**, in addition to the elements stated above regarding claims 20 and 47, the combination further discloses in Birrell:

storing a process for decompressing compressed data for a selected compression format (i.e. a ROM that stores a decompression procedure for decompressing compressed audio data; col. 5 lines 22 – 44).

The combination does not explicitly discloses storing the process on the storage device as claimed in claim 21. However, Examiner takes official notice that it would have been obvious to one of ordinary skill in the art at the time of the invention to store the procedures in the ROM instead of in the storage device. Both the ROM and the disk are non-volatile memory devices and therefore are suitable to store system procedure programs. It would be an obvious variation to store the programs instead on the disk. One would have been motivated to do so in order to manufacture the Birrell player with less parts and thus making it less costly as the ROM would not be required if the programs were stored instead on the disk.

Furthermore Birrell in the combination discloses:

wherein the processor for decompressing compressed data is retrieved from said storage device (i.e. the CPU uses a stored decompression procedure to decompress; col. 5 lines 20 – 25); and

wherein said decoder decompresses the media data in accordance with the retrieved process (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25).

Birrell does not explicitly disclose wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format.

Yanagihara discloses:

wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format. (i.e. the general controller determines the compression such as one of MPEG audio, Dolby AC-3, and Linear PCM and sets a decoder in accordance with the data received).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement Yanagihara's general controller on the modified CPU of Birrell in order to determine a type of media compression. One would have been motivated to do so to enable the player to be able to play a number of various audio files in different compression formats. With the lack of a standard compression technique in digital audio encoding, multiple formats have been developed (i.e. mp3, AAC, ADPCM, windows media audio, real audio, etc…) and it would have been desirable to have a player such as Birrell's to be enabled to play the different media.

Claims 10, 19, 26, 37 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Terui (U.S. Patent 5,903,871).

Regarding **Claims 10, 19, 26, 37 and 46**, in addition to the elements stated above regarding claims 4, 11, 22, 31 and 38, Birrell does not disclose an input circuit to receive media data, wherein said digital signal processor comprises an encoder to compress the received media data, and wherein the compress[ed] media data received by said input circuit is stored on said storage device.

Terui discloses:

an input circuit to receive media data, (i.e. a microphone for converting voice to an electric signal and an analog to digital converter for converting it to a digital signal; col. 3 lines 4 – 12);

wherein said digital signal processor comprises an encoder to compress the received media data (i.e. the digital signal is compressively transformed; col. 3 lines 25 – 29); and

wherein the compress[ed] media data received by said input circuit is stored on said storage device. (i.e. recording the voice data to the recording media; col. 4 lines 50 – 60).

It would have been obvious to one of ordinary skill in the art to add the features of Terui to the elements of the combination in order to integrate a portable voice recorder into Birrell's portable player. One would have been motivated to do so in order

to enhance the operation of the player to provide a voice recording and reproducing apparatus which can easily store and manage a voice file (Terui col. 1 lines 48 - 50).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 - 23, 25, 26, 28 - 48 and 97 - 112 are provisionally rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 1 - 10 of copending Application No. 10/184,302. Although the conflicting claims are not identical, they are not patentably distinct from each other because any such portable device can be carried anywhere, for example, it can be transported in a briefcase, pocket, and vehicle to name a few. Any such portable media device as discussed above are well known to be connected and have operation in a vehicle, even if it is merely to connect for power.

Claims 1 - 23, 25, 26, 28 - 48 and 97 - 112 are provisionally rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 1 - 5, 20 - 23, 38 - 41, 56 - 59 and 74 - 85 of copending Application No. 10/184,299. Although the conflicting claims are not identical, they are not patentably distinct from each other because any such portable device can be carried anywhere, for example, it can be transported in a briefcase, pocket, and vehicle to name a few. Any such portable media device as discussed above are well known to be connected and have operation in a vehicle, even if it is merely to connect for power.

Claims 1 - 23, 25, 26, 28 - 48 and 97 - 112 are provisionally rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 1 - 10, 26 - 34, 50 - 53, of copending Application No. 10/184,505. Although the conflicting claims are not identical, they are not patentably distinct from each other because the interface is inherently taught via input and output circuits are being applied wherein data is being directed to and from the system. Various types of interfaces are well known depending on port capabilities and necessities to the system environment. This is a provisional obviousness type double patenting rejection because the conflicting claims have not in fact been patented.

(12) Response to Argument

In Section B subsection 1, Appellant alleges:

> "…the Birrell patent fails to show, teach, or suggest a programmable processor programmed as both a storage controller to

> retrieve compressed media data stored in a storage device and a digital signal processor to decompress the compressed media data." Appellant substantiates this allegation by stating "the Birrell patent explicitly discloses a CPU 102 and a separate disk controller 106" and that the cited portions of Birrell "…fail[s] to disclose any functions that are typically associated with a storage controller and "CPU 102 clearly relies on the disk controller 106 to function as a storage controller."

Examiner respectfully disagrees. The CPU of Birrell is programmed with numerous operational programs. Birrell calls these programs procedures and lists them in column 5. Birrell specifically notes that these control programs are executed by the system's data processor 102; col. 5 lines 10 – 11. One of the programs is a decompression procedure for decompressing compressed audio data; col. 5 lines 22 – 24. This decompression procedure causes the CPU to decompress compressed audio data, thus acting as "a programmable processor programmed as a digital signal processor to decompress the compressed media data stored in memory."

Secondly, Birrell discloses a play procedure; col. 5 lines 21 – 22. This play procedure is fully disclosed in Fig. 3. During the play procedure, which is being executed and controlled by CPU 102, transfers data from disk 104 to RAM 108. Since the CPU, as a result of running the play procedure, exerts control over disk 104 to transfer data, it can be interpreted as "a programmable processor which is programmed as a storage controller to retrieve the compressed media data stored in said storage device." Birrell is silent as to what the exact function of disk control 106 is, but it is likely that it receives control signals from the CPU to cause the disk to retrieve the data requested by CPU 102. This is the function of most disk controllers known in the art.

Finally, since Birrell's CPU 102 exerts control over the storage device 104 using a play procedure and also operates to decompress audio data using a decompression procedure, Birrell's CPU meets the limitations of " a programmable processor programmed as both a storage controller to retrieve compressed media data stored in a storage device and a digital signal processor to decompress the compressed media data."

Section B subsections 2 and 3

The allegations in these sections are not persuasive for the same reasons stated in Section B subsection 1.

In Section B subsection 4 Appellant alleges:

> "…the combination of the Birrell and Gadre patents is improper" and "the combination fails to show, teach, or suggest that the processor comprises a single integrated circuit." Appellant substantiates this argument by stating "The Examienr improperly relies on the Gadre patent to suggest a processor that is programmed as both the storage controller and the digital signal processor." And "Gadre is directed to integrating the functionality of digital signal processing chips and is absent of any teaching or suggestion of combining the functionality of a storage controller with the DSP on the same integrated device." Further, "Figs 3 and 4… none of the processing cores 62 and 102 are storage controllers" and "instead, Figs 3 and 4 of Gadre disclose separate memory controllers 70 and 122 respectively."

Examiner respectfully disagrees. As noted, Birrell discloses all of the elements claimed by Appellant, except they are disclosed as discrete elements. Claim 5 further narrows claim 1 by requiring that the storage controller be responsive to said digital

signal processor. Birrells processor 102 acts as the digital signal processor as it decompresses the compressed audio data (also see the remarks under Section B subsection 1). Birrell's processor, which, when reading as broadly as possible, can act alone as a storage controller (again see the remarks under Section B subsection 1 which shows CPU 102 exerts control over the storage device 104 using a play procedure). However, it will not be responsive to the DSP claimed. However, the disk controller 106 is controlled by the processor to retrieve data from the disk and thus is responsive to the DSP as claimed. This element is a discrete device separate from Birrells CPU.

Gadre discloses implementing several DSP functions onto a single integrated circuit; col. 1 lines 62 - 67. Appellant's argument is not persuasive for at least two reason as a result.

First, interpreting the DSP functions as broadly as possible, the disk controller can be interpreted as a DSP function. The disk controller handles, processes and responds to digital data, thus it is a "digital signal processor."

Secondly, assuming *arguendo* that a disk controller is not a DSP function, the main teaching taken from Gadre is that the "same integrated circuit device can be used to perform any number of functions merely by executing different software supplied to the device."; col. 2 lines 29 – 35. It is notoriously well known in the art, as noted by Gadre, to implement any variety of functions onto a single integrated circuit. For further reference Chan (U.S. Patent 6,085,269) discloses a single chip computer with a CPU, graphics controller, memory, memory controller and various other functions; Fig. 2. Ellis

(U.S. Patent 6,732,141) discloses, "microprocessors integrate most or all of the other necessary computer components (or their present or future equivalents or successors), like a PC's memory … on a single chip"; col. 15 lines 34 – 45.

Thus, while Gadre may not show the memory controllers 70 and 122 on a single chip, the reference at least suggests this by stating that the same integrated circuit device can be used to perform any number of functions. Further, Gadre was never relied upon to show the actual storage controller on a single chip, only that multiple functions can be implemented on one chip. Thus it would have been obvious to integrate any number of Birrell's discrete functioning chips/circuits onto a single integrated circuit/microprocessor. As such, elements 102 and 106 in Birrell would be modified to be included on a single circuit and read upon the limitations in claim 5. This teaching is notoriously well known in the art as stated above and is extremely desirable as stated below.

Appellant further alleges:

> "Since the Examiner has offered no proper support or motivation for combining the reference, it is respectfully submitted that the rejection based on obviousness is clearly and unequivocally founded upon "knowledge gleaned only from applicant's disclosure… consequently it is respectfully submitted that the rejection entails impermissible hindsight and is, therefore, improper."

Examiner respectfully disagrees. In the previous office action, pages 24 and 25 provide motivation for combining the two references. Gadre states that a significant need has developed for integrating the functionality of multiple chips onto a single

integrated circuit (one being a hardwired approach (OA at 24 and 25 and Gadre col. 1 lines 53 – 58 and col. 2 line 1 – 34). The motivation to do so would be to achieve greater performance, lower design and manufacturing costs, reduced component size, and reduced power requirements (OA at page 25 and Gadre, col. 1 lines 56 – 80). Since Gadre discloses various reasons for implementing multiple functions on a single chip and it was stated in the previous action, it cannot be deemed neither improper nor hindsight.

The Appellant alleges that this combination is made in hindsight, relying upon Appellant's disclosure. However, Appellant makes this conclusory statement without providing any evidence as to why this is. Appellant does not point to any area of the specification which discloses these teachings where are alleged to be "hindsight." Appellant's specification is notably silent on the benefits and desirable features noted in the office action which are clearly supported with references to the prior art. It is submitted because Appellants specification is silent and Appellant has not provided any evidence showing these teachings, they cannot be hindsight.

In Section B subsection 4 Appellant alleges:

> "...the combination of Birrell and Yanigihara fails to show, teach or suggest determining a compression format of media data stored in memory, retrieving the process for decompressing compressed data from a storage device in accordance with the determined compression format, and decompressing the media data in accordance with the retrieved process." Appellant substantiates this argument by stating that Yanagihara has a "general controller section 21 [that] may set a decoder or parameter pertaining thereto… in accordance with the received control data" and "then general control data is received from a DVD" and "the control data is received along with the encoded media data from the same

> source" and "the general controller section 21 sets decoder parameters based on the general control data." Appellant further states "Yanagihara discloses, at best, receiving encoded media data and general control data, and decoding the encoded media data in accordance with the general control data." Appellants final argument is that the general controller does not retrieve from a storage device in accordance with a determined compression format."

Examiner respectfully disagrees. Most telling is that Appellant agrees, "Yanagihara discloses, at best, receiving encoded media data and general control data, and decoding the encoded media data in accordance with the general control data." Thus it must be agreed at least that because Yanagihara discloses setting decoder parameters based on the general control data, the system must read this data and thus is performing a determination which reads upon "determining a compression format of the stored media data."

Furthermore, Yanigihara was never relied upon to retrieve the decompression processes. Birrell discloses this feature in col. 5 lines 20 – 25. Birrell, while disclosing using a stored decompression procedure and retrieving it to decompress, is silent as to determining which should be used or that even multiple are available. However, as noted, multiple compression formats are readily available in the art. It would be desirable to be able to decompress a number of these formats. However, Birrell is not adapted to do so. This is the purpose for Yanagihara. When taking Birrell in view of Yanagihara, the system's controller will operate as in Yanagihara to read the media data and determine the compression format. Then, as taught by Birrell, the system will retrieve the decompression procedure, as determine by Yanagihara to decompress the data. Thus the limiations of "determining a compression format of media data stored in

memory" (Yanagihara determining the format), retrieving the process for decompressing compressed data from a storage device (Birrell retrieving the decompression procedure) in accordance with the determined compression format (the decompression procedure determined by Yanagihara), and decompressing the media data in accordance with the retrieved process (setting the CPU in Birrell like the General controller in Yanagihara using the retrieved decompression procedure above).

Additionally, while not stated and not relied upon, it is almost assuredly inherent if not extremely obvious that Yanighihara must retrieve a decompression procedure. Yanagihara can decompress multiple forms of media data. The system must have some procedure or setting saved or readily accessible to set the system to enable it to decompress these multiple forms of media.

Appellant further alleges:

> Since the Examiner has offered no proper support or motivation for combining the reference, it is respectfully submitted that the rejection based on obviousness is clearly and unequivocally founded upon "knowledge gleaned only from applicant's disclosure… consequently it is respectfully submitted that the rejection entails impermissible hindsight and is, therefore, improper."

Examiner respectfully disagrees. In the office action being appealed, It was stated that "One would have been motivated to do so to enable the player to be able to play a number of various audio files in different compression formats. With the lack of a standard compression technique in digital audio encoding, multiple formats have been

developed (i.e. mp3, AAC, ADPCM, windows media audio, real audio, etc…) and it would have been desirable to have a player such as Birrell's to be enabled to play the different media." (OA at page 29). The Appellant alleges that this combination is made in hindsight, relying upon Appellant's disclosure. However, Appellant makes this conclusory statement without providing any evidence as to why this is. Appellant does not point to any area of the specification which discloses these teachings where are alleged to be "hindsight." Appellant's specification is notably silent on the benefits and desirable features noted in the office action. It is submitted because Appellants specification is silent and Appellant has not provided any evidence showing these teachings, they cannot be hindsight.

Section B subsections 6, 7 and 8

The allegations in these sections are not persuasive for the same reasons stated in Section B subsection 1.

In Section B subsection 9 Appellant alleges:

> "…the Birrell patent fails to show, teach, or suggest… wherein when a user selects a particular one of said plurality of selections, said processor retrieves a remaining portion of the particular one of said plurality of selections and said output device outputs the portion and remaining portion of the particular one of said plurality of selections." Appellant substantiates this allegation by stating "…transferring additional data when playtime associated data stored in RAM falls below a threshold is not analogous to transferring remaining data when a user selects…"

Examiner respectfully disagrees. The system in Birrell will not playback without a command effected by the user. Birrell allows a user to select a song to be played back. This select beings the playback process. This processes begins by transferring some data from the hard disk to the RAM; col. 6 lines 14 – 16. When the system determines that the data in the RAM is below a threshold amount, the system transfers more data to the RAM from the hard disk in order to avoid gaps in playback; col. 6 lines 5 – 28. None of this occurs unless a user begins playback ("user selection"). Appellant is stating that this is not analogous to transferring data when a user selects. However, this is exactly what Birrell does. While the user is not directly responsible for effecting the transfer, the users initial command to cause a playback will cause the system to operate in this manner, and thus it is "when a user selects."

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Andrew Flanders/

Conferees:

/Sinh N Tran/

Supervisory Patent Examiner, Art Unit 2615

/Vivian Chin/

Supervisory Patent Examiner, Art Unit 2615